

## REMARKS

The Specification has been amended to correct obvious inadvertent typographical errors. Claim 1 has been amended to better claim the invention. Claim 3 has been amended for consistency with claim 2, from which it depends, and with Table IV at page 19 of the as-filed Specification. New claim 25 recites the coding sequences for the proteins recited in claim 3. None of the amendments made herein constitutes the addition of new matter.

### The Requirement for Restriction

The Examiner has divided the claims into eighty groups and requires an election between them. Groups I-LXXX are defined below:

- Group I, claim 3 (in part) and claims 1-2, 4-5, 11-13 and 16, drawn to an isolated nucleic acid encoding a polypeptide having galacturonosyltransferase (GalAT) activity, including a nucleic acid encoding SEQ ID NO: 2, and to an expression vector and a transgenic plant comprising said nucleic acid.
- Groups II-XXV, claim 3 (in part) and claims 1-2, 11-13, and 16, drawn to an isolated nucleic acid encoding a polypeptide having galacturonosyltransferase (GalAT) activity, including a nucleic acid encoding a specified amino acid sequence, and to an expression vector and a transgenic plant comprising said nucleic acid; wherein the specified amino acid sequence for Groups II-XXV is the even numbered sequences from SEQ ID NOs: 4-50, respectively.
- Group XXVI, claim 7 (in part) and claims 6 and 8-9, drawn to an isolated polypeptide having GalAT activity, wherein the polypeptide has approximately 50% amino acid sequence similarity with SEQ ID NO: 2, including the polypeptide of SEQ ID NO: 2.
- Groups XXVII-L, claim 7 (in part) and claim 6, drawn to an isolated polypeptide having GalAT activity, wherein the polypeptide has approximately 50% amino acid sequence similarity with SEQ ID NO: 2, including the polypeptide with a specified amino acid sequence; wherein the specified amino acid sequence for Groups XXVII-L is the even numbered sequences from SEQ ID NOs: 4-50, respectively.
- Groups LI-LXXV, claims 10 and 24, drawn to an antibody which specifically recognizes a specified polypeptide; wherein the specified polypeptide for

Groups LI-LXXV is the polypeptide of the even numbered sequences from SEQ ID NOs: 4-50, respectively.

- Group LXXVI, claim 14, drawn to a transgenic plant having a modified pectin.
- Group LXXVII, claim 15, drawn to a transgenic plant having altered GalAT activity, wherein the altered activity is due to a mutation in the GALAT gene.
- Group LXXVIII, claims 17-18, drawn to a modified pectin and a product comprising said modified pectin.
- Group LXXIX, claim 19, drawn to a method of generating a plant with altered GalAT activity by mutating the GALAT gene.
- Group LXXX, claims 20-23, drawn to a method of preparing a polymer comprising a galacturonic acid and a polymer with a GALAT protein under conditions suitable to form at least one covalent linkage between the galacturonic acid and the polymer.

In addition, the Examiner has determined there are multiple species presented and requires an election of a species for initial examination. The non-elected species should be rejoined if a generic claim is found to be allowable.

Applicants elect the claims of Group I with traverse and respectfully request that in view of the commonality of the subject matter, that Groups I and II be rejoined. The Examiner has acknowledged that the claims are linked by the common technical feature of being sequences which are members of the GALAT enzyme family, and this application was filed under 35 U.S.C. 371.

Under Paragraph 10.50 of the PCT Guidelines, claims to polypeptides and claims to the nucleic acids encoding them have unity of invention *a priori*. Accordingly, proper unity of invention practice should be followed and Applicants respectfully request that protein and coding sequence claims be examined together in this application.

To the extent that it is necessary to elect a particular species for examination, Applicants elect SEQ ID NO:2 for examination. As is stated in the application at page 7,

lines 6-10, and page 19 (Table IV), the sequences listed in claim 3 are members of the GALAT gene family. In addition, Figure 7 of the as-filed application provides strictly conserved residues for the GALAT enzymes and there is discussion as to requirements at page 18, lines 1-23. Claims reading on the elected species include claims 1-9, 11-13, 16, 23 and 25. In addition, claim 10, drawn to an antibody which specifically reacts with a GALAT protein, shares the common technical feature of a GALAT protein as set forth by the present inventors.

#### Conclusion

This response is accompanied by a Petition for Extension of Time and payment in the amount of \$225.00 as required by 37 C.F.R. 1.17(a)(2) by charge to Deposit Account No. 07-1969. If any additional fees, or any further extensions of time, are due pursuant to 37 C.F.R. 1.16-1.17, please charge the appropriate amount due to Deposit Account No. 07-1969.

Respectfully submitted,

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